



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/655,361	09/04/2003	Chikara Kami	1012-DIV-5-02	1565

35811 7590 12/27/2004

IP DEPARTMENT OF PIPER RUDNICK LLP  
ONE LIBERTY PLACE, SUITE 4900  
1650 MARKET ST  
PHILADELPHIA, PA 19103

EXAMINER

YEE, DEBORAH

ART UNIT	PAPER NUMBER
----------	--------------

1742

DATE MAILED: 12/27/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/655,361

Applicant(s)

KAMI ET AL.

Examiner

Deborah Yee

Art Unit

1742

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 23-25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 23-25 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☒ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>7-09-04, 10-27-03</u> . | 6) <input type="checkbox"/> Other: ____.  |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 23 to 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chou (US Patent 5,123,969) cited by applicant in IDS dated July 9, 2004 in view of the English abstract of Japanese patent 363007336.

3. Chou in claim 1 discloses cold rolled steel sheet having an analogous alloy composition and is processed by hot rolling, coiling at 560 to 720C ( overlaps 800C or less); cold rolling, continuous annealing at 780 to 900C (overlaps recrystallization temperature to 800C), gradually cool to annealing at 650 to 750 (overlaps Ac1 to Ac3), cooling to a temperature of 200 to 400C at rate of 50 to 400C/sec(overlaps cooling to 500C or less at cooling rate of 10 to 300C), and held at 200 to 400C for overaging (overlaps overaging temperature of 350C).

4. Moreover, Chou in Table 6 of columns 11 and 12 teach annealing by continuous annealing or box annealing. Even though Chou does not teach box annealing followed by continuous annealing as recited by claim 23, such would not be a patentable difference since both techniques are well known in the art and can be used interchangeably as evident by the English abstract of JP'336. Moreover, applicant has not established (e.g. by comparative data) why box annealing followed by continuous

annealing is somehow critical and productive of new and unexpected results. Also note that Chou mentions on line 29 of column 10 that box annealing can be used but it is time consuming.

5. Since the steps of prior art and present invention process are essentially the same with overlapping temperature and cooling rate ranges, and the alloy compositions have the same constituents with overlapping wt% ranges, then a prima facie case of obviousness is established because it would have been obvious to one of ordinary skill in the art to select the claimed ranges from the broader disclosure of the prior art because the prior art has the same utility (cold rolled steel sheet for automobile structural parts) and similar properties of high strength and r-value.

6. Chou in claim 1 discloses aging at 200 to 400C for 1 –6 minutes which overlaps the aging temperature at 350C for 20 seconds or more recited by claim 24.

7. Chou in claim 1 discloses a steel alloy containing small amounts of Ti and B which meets claim 25.

8. Claims 23 to 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Japanese patent 356023229 alone or in view of Chou (US Patent 5,123,969).

9. The English abstract of JP'229 discloses an analogous cold rolled steel sheet processed by hot or cold rolling, box annealing at 660-780C (overlaps recrystallization temperature to 800C), continuous annealing at a temperature of 650C or greater (overlaps Ac1 to Ac3-20C).

10. Even though prior art does not teach coiling as recited by claim 23, such would be obvious modification to incorporate since it is well known in the art to coil steel sheet

after rolling, as shown in Chou in claim 1. Also hot rolling, cold rolling or hot and cold rolling to form steel sheet would be a matter of choice well within the skill of artisan .

11. Even though the prior art does not teach a cooling rate of 10 to 300C/sec as recited by claim 23, such would be expected since the same r value of 1.2 or more (see figure 2 on page 194) and high tensile strength (see Table 3 on page 193) are taught.

12. Since the steps of prior art and present invention process are essentially the same with overlapping temperature and cooling rate ranges, and the alloy compositions have the same constituents with overlapping wt% ranges, then a prima facie case of obviousness is established because it would have been obvious to one of ordinary skill in the art to select the claimed ranges from the broader disclosure of the prior art because the prior art has the same utility (cold rolled steel sheet for automobile structural parts) and similar properties of high strength and r-value.

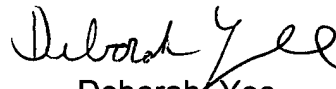
13. Even though JP'229 does not teach overaging as recited by claim 24, such would be obvious step to incorporate if higher highness is sought and desired, as taught by Tosaka in column 9 for an analogous cold rolled steel sheet.

14. JP'229 discloses a steel containing small amounts of Cr which would meet claim 25.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Deborah Yee whose telephone number is 571-272-1253. The examiner can normally be reached on Monday-Friday from 6:00 to 2:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on 571-272-1244. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Deborah Yee  
Primary Examiner  
Art Unit 1742

DY